

Performance Testing
for
Recycled Rubber Replacement Soil Based Turf Growing Medium

Test Description	Trial No. 1	Specification Acceptance Range				
Field Testing	2/8/01					
Football Rebound Resilience	50%	20 to 50%				
Clegg Impact Soil Tester Rating	20	20 to 80g				
Traction	42 N.m	Minimum 25 N.m Preferred				
Distance Rolled by a Football	4.1m	3 to 12m Preferred				
Surface Evenness	3.0mm	Maximum 8mm Standard Deviation Preferred				
Depth of Grass		20mm				
Type of Grass		Kikuyu				
Thickness of Rubber Profile		75 to 80mm				
Ball	R	REAL: Size 5:437.8g+				

Notes:

- Specifications from Standards for the Playing Quality of Natural Turf for Association Football by P.M Canaway, M.J Bell, G Holmes and S.W. Baker
- + Calibrated inflation to rebound between 57 to 59% when dropped onto concrete and a drop height of 3m.
- Clegg Impact Hammer: Mass 0.5kg ; Drop 300mm ; 50mm Diameter
- Weather conditions: Fine, dry and between 17 to 20° Celcius
- The rubber soil profile was moist and the test area was made up 1.1m square plates of the grass rubber soil profile

Fig. 3

Performance Testing
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Test Description	Trial No. 2	Specification Acceptance Range				
Field Testing	2/8/01					
Football Rebound Resilience	49%	20 to 50%				
Clegg Impact Soil Tester Rating	15	20 to 80g				
Traction	59 N.m	Minimum 25 N.m Preferred				
Distance Rolled by a Football	4.1m	3 to 12m Preferred				
Surface Evenness	2.3mm	Maximum 8mm Standard Deviation Preferred				
Depth of Grass		20mm				
. Type of Grass		Kikuyu				
Thickness of Rubber Profile		90mm				
Ball	R	REAL: Size 5:437.8g+				

Notes:

- Specifications from Standards for the Playing Quality of Natural Turf for Association Football by P.M Canaway, M.J Bell, G Holmes and S.W. Baker
- + Calibrated inflation to rebound between 57 to 59% when dropped onto concrete and a drop height of 3m.
- Clegg Impact Hammer: Mass 0.5kg; Drop 300mm; 50mm Diameter
- Weather conditions: Fine, dry and between 17 to 20° Celcius
 - The rubber soil profile was moist and the test area was made up 1.1m square plates of the grass rubber soil profile

Fig. 4

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Test Description	Trial No.3	Specification Acceptance Range				
Field Testing	2/8/01					
Football Rebound Resilience	45%	20 to 50%				
Clegg Impact Soil Tester Rating	22	20 to 80g				
Traction	42 N.m	Minimum 25 N.m Preferred				
Distance Rolled by a Football	_	3 to 12m Preferred				
Surface Evenness	3mm	Maximum 8mm Standard Deviation Preferred				
Depth of Grass		15mm				
Type of Grass		Couch				
Thickness of Rubber Profile		70mm				
Ball	R	REAL: Size 5:437.8g+				

Notes:

- Specifications from Standards for the Playing Quality of Natural Turf for Association Football by P.M Canaway, M.J Bell, G Holmes and S.W. Baker
- + Calibrated inflation to rebound between 57 to 59% when dropped onto concrete and a drop height of 3m.
- Clegg Impact Hammer: Mass 0.5kg; Drop 300mm; 50mm Diameter
- Weather conditions: Fine, dry and between 17 to 20° Celcius
- The rubber soil profile was moist and the test area was made up 1.1m square plates of the grass rubber soil profile

Fig. 5

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Performance Testing of Turf Growing Medium

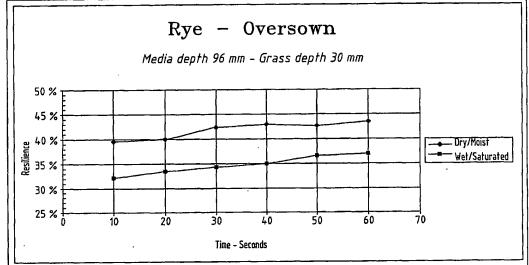
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Specification Acceptance Range		20 to 50%	20 to 80g	Minimum 25 N.m Preferred	3 to 12m Preferred	Maximum 8mm Standard Deviation Preferred					
Trial SCG	16/8/01	45 %	16 g	65 N.m	4.7 m	1.8 mm	Sand	25mm to 30mm	Couch Legend	300mm	7.8g+
Trial SFS	16/8/01	38 %	13 g	55 N.m	3.8 m	4.8 mm	Sand/Soil	20mm to 35mm	Couch Legend	> 300 mm	REAL: Size 5:437.8g+
Trial Rubber	2/8/01	20 %	20 g	42 N.m	4.1 m	3.0 mm	Rubber	20 mm	Kikuyu	75mm to 80mm	
Test Description	Field Testing	Football Rebound Resilience	Clegg Impact Soil Tester Rating	Traction	Distance Rolled by a Football	Surface Evenness	Type of Profile	Depth of Grass	Type of Grass	Thickness of Soil Profile	Ball

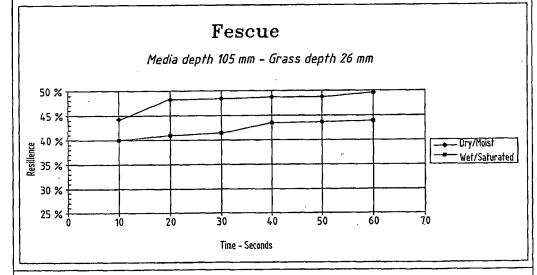
Fig. 6

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resilience test results



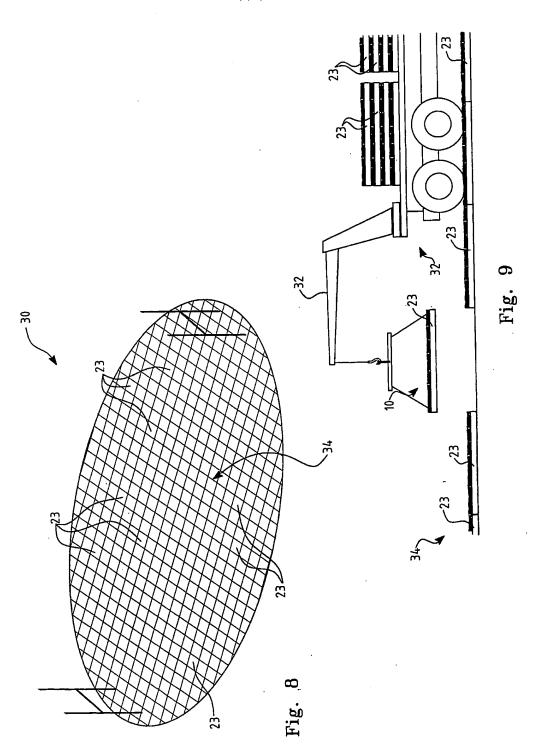




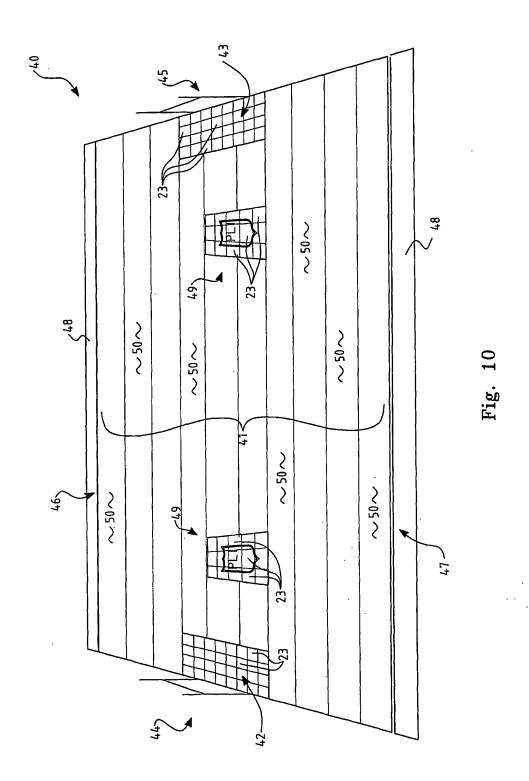
remarks:

Specifications from the "Standards of the Playing Quality of Natural Turf for Association Football" by P.M. Canaway; M.J. Ball; G Holmes; and S.W. Baker, calls for a football Rebound Resilience of between 20% and 50%. As can be observed from the above graphs, even when the profile is saturated, the rebound resilience meets this criteria and apparently performs similarly as the partially saturated profile.

Fig. 7



SUBSTITUTE SHEET (RULE 26)



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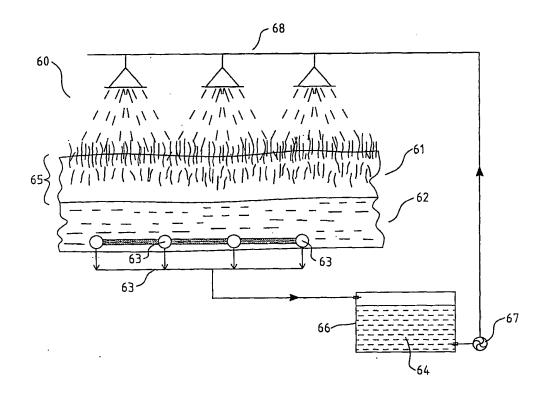


Fig. 11